

Title (en)  
Heatable controlled deflection roll.

Title (de)  
Durchbiegungssteuerbare und beheizbare Walze.

Title (fr)  
Rouleau à réglage de la flexion chauffable.

Publication  
**EP 0503381 B1 19950621 (DE)**

Application  
**EP 92103326 A 19920227**

Priority  
DE 4107440 A 19910308

Abstract (en)  
[origin: US5208956A] A controlled deflection roll for use in calenders and like machines has a non-rotatable carrier for a hollow cylindrical shell the end portions of which are rotatable on bearings and the central portion of which surrounds hydraulically operated shell deforming elements. A first hydraulic circuit is provided to supply heated oil to the deforming elements, and a second hydraulic circuit serves to feed lubricant to the bearings. The two circuits are separated from each other by thermal barriers which are installed between the shell and the carrier intermediate the deforming elements and the bearings. Valves and/or flow restrictors are provided in the second circuit to vary the rate of feed of lubricant to and/or the flow of lubricant from the bearings. This renders it possible to establish a desired temperature profile along the full length of the peripheral surface of the shell.

IPC 1-7  
**D21G 1/02**; **F16C 13/00**

IPC 8 full level  
**B21B 13/14** (2006.01); **B21B 27/08** (2006.01); **D21G 1/02** (2006.01); **F16C 13/00** (2006.01); **F16C 13/02** (2006.01)

CPC (source: EP US)  
**B21B 27/055** (2013.01 - EP US); **B21B 27/08** (2013.01 - EP US); **D21G 1/022** (2013.01 - EP US); **F16C 13/02** (2013.01 - EP US); **F16C 13/028** (2013.01 - EP US)

Cited by  
US4700234A; DE102006024832A1; DE10122649A1; DE10122649C2; DE102006024832B4

Designated contracting state (EPC)  
AT BE DE FR GB NL

DOCDB simple family (publication)  
**US 5208956 A 19930511**; AT E124103 T1 19950715; CA 2062386 A1 19920909; CA 2062386 C 19951121; DE 4107440 C1 19920213; DE 4107440 C2 19931202; DE 59202580 D1 19950727; EP 0503381 A1 19920916; EP 0503381 B1 19950621; FI 921003 A0 19920306; FI 921003 A 19920909; FI 98231 B 19970131; FI 98231 C 19970512

DOCDB simple family (application)  
**US 84777892 A 19920306**; AT 92103326 T 19920227; CA 2062386 A 19920305; DE 4107440 A 19910308; DE 59202580 T 19920227; EP 92103326 A 19920227; FI 921003 A 19920306